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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,290	02/28/2002	Toshio Kazama	AB-1215 US	3057

7590 05/19/2005

MACPHERSON KWOK CHEN & HEID LLP  
1762 TECHNOLOGY DRIVE  
SUITE 226  
SAN JOSE, CA 95110

EXAMINER

TSUKERMAN, LARISA Z

ART UNIT PAPER NUMBER

2833

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EV

<b>Office Action Summary</b>	Application No. 10/070,290	Applicant(s) KAZAMA, TOSHIO	
	Examiner Larisa Z. Tsukerman	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Appeal Brief dated 01/24/2005.  
 2a) ☐ This action is FINAL.      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-10 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1,2 and 4-10 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

In view of the Appeal brief filed on 01/24/2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Paula Bradley.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

Art Unit: 2833

subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 – 4, 5, 6, 7, 9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable by Chang (5500605) in view of Onodera et al. (6133537).

In regard to **claims 1, 9 and 10**, Chang discloses a conductive contact member 25 for establishing a temporary electric contact by being applied under a resilient force (member 22 and spring 24 and spring 30) to an object 10 to be contacted that includes solid solder 15, **However**, Chang lacks to comprise **a layer** of highly electrically conductive material **resistant to solder deposition** wherein the layer being formed at least over a conductive contact part of the conductive contact member so that the conductive contact part of the conductive contact member may not be contaminated by deposition of solder from the object to be contacted, and wherein **the layer essentially consisting of an alloy of gold added with silver**, the layer being formed at least over a conductive contact part of the conductive contact member so that the conductive contact part of the conductive contact member may not be contaminated by deposition of solder from the object to be contacted.

**Onodera et al.** teach a contact 110/120 with a contact surface comprising an Au (7-16%), Ag (77-92%), Pd (1-10%) alloy layer in order to provide a contact surface with a **high anti - adhesion property and a highly stable contact resistance** to (see Abstract, Col.4, lines 35-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and **for the same reason** to use Au Ag (Pd) alloy, as taught by Onodera et al., in structure of Chang.

Art Unit: 2833

**Examiner** considers that **anti - adhesion property** includes **a resistant to solder deposition** also.

**In regard to claim 4**, Chang modified by Onodera et al. discloses most of the claimed invention except for that silver is added to gold by 0.01 to 8%.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add silver to gold in such range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

**In regard to claim 5**, Chang discloses the conductive contact member is selected from the group consisting of a needle member 26 having a pointed end 29 (see Fig. 3 and 4).

**In regard to claim 6**, Chang modified by Onodera et al. discloses most of the claimed invention except for that the conductive member made of steel.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the conductive member made of steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416 (CCPA 1960).

**In regard to claim 7**, Chang discloses the contact member 25/30 in a form of a compression coil spring (see Fig.3).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (5500605) and Onodera et al. (6133537), as applied to claim 1 above, and further in view of DiRenzo (3599326).

**In regard to claim 2**, Chang modified by Onodera includes most of the limitations except for **how** the layer was formed. DiRenzo teaches pins 12 have a layer resistant to solder deposition formed by plating.

Various **coating methods** can be used: dipping, silk screening or application of a past, thermosonic and thermocompression bonding etching, **plating**, sputtering, vacuum evaporation, gluing, conductive ink and pasting methods may be used.

**Plaiting method** includes various **well know, widely spread, and low cost methods** such as: electrolytic plating, hot tinning, electro tinning, electrolyses plating, cream solder potting method, etc. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use **a low cost and well – known method** of plaiting, as taught by DiRenzo, in Chang-Onodera structure.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and **for the same reason** to use Au Ag (Pd) alloy, as taught by Onodera et al., in structure of Chang.

**Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (5500605) in view of Onodera et al. (6133537), as applied to claims 1 and 7 above, and further in view of Loranger et al. (5791914).

Art Unit: 2833

In regard to claim 8, Chung as modified by Onodera et al. disclosed most of the claimed invention, including the **solder resistant layer is formed over** an outer surface, **except for** the contact member having a **contact part** in a form of **closely wound turns** of a coil wire. Loranger et al. discloses the contact member 11 is in a form of a compression coil spring having **contact rigid ends 29/23** in a form of **closely wound turns** of a coil wire (see Fig.5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and to include a **contact part** in a form of **closely wound turns** of a coil wire in structure of Chang, as taught by Loranger, in order to provide an axially straight electric path all the time for better electrical connection.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-2, and 4-8 have been considered

In response to Applicant's argument that Onodera discloses the use of gold/silver palladium alloy for a contact surface layer material and teaches away from using a layer **essentially consisting of** gold and silver, Examiner disagrees. The alloy is **essentially consisting of an Au (7-16%), Ag (77-92%), Pd (1-10%)**.

The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original).

Art Unit: 2833

There is no evidence that the presence of palladium would materially affect the basic and novel characteristic of the claimed invention.

*PPG Industries v. Guardian Industries*, 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998). See also *Atlas Powder v. E.I. duPont de Nemours & Co.*, 750 F.2d 1569, 224 USPQ 409 (Fed. Cir. 1984); *In re Janakirama-Rao*, 317 F.2d 951, 137 USPQ 893 (CCPA 1963); *Water Technologies Corp. vs. Calco, Ltd.*, 850 F.2d 660, 7 USPQ2d 1097 (Fed. Cir. 1988).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larisa Z. Tsukerman whose telephone number is (571)-272-2015. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571)-272-2800 ex. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2833

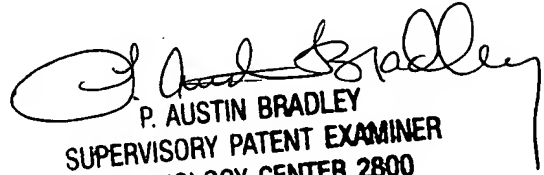
For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT

04/29/2005

  
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